

ABSTRACT

In a system in which echo transferred from a received signal to an outgoing signal is canceled by subtracting an adaptively predicted echo signal from the outgoing signal, howling is detected by detecting the effect of the predicted echo signal. The detected effect preferably depends on the magnitude or polarity of the predicted echo signal. The effect may be detected by comparing an envelope of the received signal or outgoing signal with a corresponding envelope of the residual outgoing signal left after echo cancellation. The echo attenuation on the echo path from the received signal to the outgoing signal may also be calculated, the conditions for howling detection being made more stringent as the detected echo attenuation increases. When howling is detected, it may be suppressed by attenuating the residual outgoing signal or initializing an adaptive filter that generates the predicted echo signal.